

What is claimed is:

1. An apparatus comprising:
a first electrode having a plurality of cells;
an electrolyte fluid;
5 a nanostructured surface corresponding to at least one of said cells in said plurality of cells,
wherein said nanostructured surface is disposed between the portion of said electrode in said at least one of said cells and said electrolyte fluid in a way such that said nanostructured surface prevents contact of the electrolyte
10 fluid and said portion of said electrode.
2. The apparatus of claim 1 further comprising:
means for causing said electrolyte fluid to penetrate at least a portion of said nanostructured surface corresponding to at least one of said cells in said plurality of cells in a way such that said electrolyte contacts said
15 electrode.
3. The apparatus of claim 2 wherein said means for causing comprises means for generating a voltage across said at least a portion of said nanostructured surface.
4. The apparatus of claim 2 wherein said means for causing comprises
20 means for increasing the temperature of said nanostructured surface.
5. The apparatus of claim 2 wherein said at least one of said cells comprises those cells whereby, upon permitting said electrolyte to penetrate the nanostructures corresponding to said cells, a predetermined voltage is generated by said battery.
- 25 6. The apparatus of claim 1 further comprising:
a voltage generator for applying a voltage to at least a portion of said nanostructured surface in a way such that the angle of contact of said electrolyte with at least a portion of the nanostructures on said nanostructured surface changes.

7. A battery comprising:

a plurality of electrodes;

a plurality of nanostructures disposed on a surface of at least one of said electrodes, said surface divided into a plurality of cells,

5 wherein said electrodes are disposed between said electrolyte fluid and that portion of said surface corresponding to each of said plurality of cells; and

means for applying a voltage to said nanostructures, said voltage operative to decrease the angle of contact between said electrolyte and said nanostructures, thereby causing said electrolyte fluid to penetrate said

10 nanostructures and contact said surface.

8. A method for use in a battery having at least a first electrode divided into a plurality of cells, at least one of said cells having a plurality of nanostructures corresponding to said at least one of said cells, said method comprising:

15 disposing an electrolyte fluid in a battery in a way such that it is in contact with a portion of said plurality of nanostructures,

wherein said electrolyte is separated from said at least a first electrode by a first portion of said plurality of nanostructures associated with a first cell in said plurality of cells, and

20 wherein said electrolyte is separated from said at least a first electrode by a second portion of said plurality of nanostructures associated with a second cell in said plurality of cells;

activating said first cell of said electrode by causing said electrolyte to penetrate between said plurality of nanostructures associated with said first cell in a way such that said electrolyte fluid contacts said at least a first electrode; and

25 upon achieving a predetermined level of depletion of said first cell of said electrode, activating said second cell of said electrode by causing said electrolyte to penetrate between said plurality of nanostructures associated with said second cell in a way such that said electrolyte fluid contacts said at least a first electrode.

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9. A method for generating a current from a battery, said battery comprising an electrode divided into a plurality of cells, each of said cells in said plurality having a plurality of nanostructures disposed thereon, said method comprising:

- 5 selectively contacting an electrolyte fluid with the electrode in a number of cells in said plurality of cells,
 wherein said number is a function of a desired current to be generated by said battery.

- 10 10. A method for generating a voltage from a battery, said battery comprising a plurality of individual, electrically isolated cells, each of said cells in said plurality of cells having a plurality of nanostructures disposed on at least a first electrode in said cell, wherein each of said cells in said plurality of cells is electrically connected in parallel with the other cells in said plurality of cells, said method comprising:

- 15 selectively contacting an electrolyte fluid with an electrode in a desired number of cells in said plurality of cells,
 wherein said desired number of cells is chosen as a function of a desired voltage to be generated by said battery.